

REMARKS

Favorable reconsideration is respectfully requested.

The claims are 9-12.

The above amendment is responsive to points set forth in the Official Action.

With regard to the requirement for missing Abstract, such is submitted herewith.

With regard to the rejection of claim 11 in the use of the term "low" viscosity, such term has been deleted as unnecessary.

Claims 9-12 have been rejected under 35 U.S.C. 102(a and b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wagner et al. '921, Neely 616B1 or 661B2, Saunders, Gasmene et al., or Schwarz (WO 9946218 or AT 9800403- abstract only).

These rejections are respectfully traversed.

Firstly, the earliest effective date is cited Neely references is July 19, 2000 which is antedated by Applicant's Norwegian Priority Application with an effective date of February 4, 1999. A verified English Translation of such priority application is enclosed.

Thus, the Neely references are antedated and are unavailable as prior art.

Similarly with regard to the Schwarz references which have an effective date of September 1999.

Of the above-cited references, Saunders (US 4,035,265) appears to represent the closest prior art. As already stated in the specification at page 3, the conductive paint according to Saunders is intended for heating purposes and it therefore contains large amounts of graphite/carbon particles.

It should also be noted that the heating of walls with a conductive paint takes place irrespective of the material onto which the paint is applied. The reinforcement embedded in the walls, will, if present, not be affected by the paint where corrosion is concerned. The iron is not electrically connected to the paint. The current will be conducted solely through the paint and not through concrete or optionally embedded iron. In the application of the film according to Saunders only the mechanical qualities of the paint are of importance- as a stable heating element. No other application of the film is mentioned in Saunders' patent.

The features of the present invention that establish novelty and unobviousness over this prior art are the following:

- a. Conductive paints based on silica for use as cathodic protection of steel in concrete have, as far as the applicants know, not been described prior to the filing of the present application.
- b. The new anode formed by the application of the present invention does not form a surface film, but acts more like an impregnation. Thereby the common problems connected to adhesion, delamination and blistering will not occur.
- c. The transfer resistance from the anode to the concrete is lower than with other paint electrodes. Thus problems with electrolysis and oxidation of the graphite causing loss of adhesion due to acidification of the concrete will be reduced.
- d. The acidification of the interphase concrete/coating is greatly reduced. Thereby delamination effects due to acidification will be reduced.
- e. When the cathodic protection installation is energized, the voltage field that arises will entail migration of ions that leads to further curing and strengthening of the anode. The graphite particles will thus be totally immobilized and function as a well established skeleton whereby a highly conductive anode is obtained. As a consequence the method according to the present invention may be operated at higher current densities than with previously known paint coatings.
- f. The impregnation of an absorbing surface will make it water repellent. The method according to the present invention may thus be used in very humid environments.
- g. Finally a catalyst may be used in the coating composition according to the invention.

The other two cited references have less in common with the present invention.

In this regard, Wagner et al., (US 5,548,921) is directed to the preparation and use of new mixtures for coatings. The new coatings are intended for the protection of concrete slabs against environmental attack, The intention is thus to produce an environmentally acceptable coating consisting of as little as possible of organic binders/constituents. The coating should still be water repellent. The electrical conductivity of the coating is not a critical factor, and no use in connection with cathodic protection is intended.

As to the composition of the coating, the polysiloxane is an essential component in the composition according to Wagner, whereas it is an optional component according to the present invention. The opposite is true for graphite/carbon black which is essential in the present case, whereas it is one of many possibilities in Wagner.

Gasmena et al. (US 5,415,688) is directed to a water-borne polysiloxane/polysilicate binder for the protection of a surface against weathering and chemical attack. The binder formulation is thus not intended for a cathodic protection anode. The key component of this binder is a water-soluble amino oxysilane. Such a compound is not used according to the present invention.

For the forgoing reasons, it is apparent that the rejections of prior art are untenable and should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expedited prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

Franz PRUCKNER

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCIES
IN FEE FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

By: Matthew Jacob
Matthew M. Jacob
Registration No. 25,154
Attorney for Applicant

MJ/kes
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
February 6, 2004